Sensitive Shoreline Assessment: A Multimedia Decision Support Tool

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Abstract
The purpose of this paper is to present a Sensitive Shoreline Assessment decision support tool that was used to designate and ecologically characterize sensitive shorelines for the Winnebago Upper Pool Lakes, Wisconsin. Following initial, coarser scale, scoping assessments, the sensitive shorelines were designated and assessed using Wisconsin Department of Natural Resources guidelines and protocols, augmented by a variety of existing classification indices. The result was an environmental folio and multimedia database that synthesizes, integrates, graphically displays, and provides modeling capabilities which incorporate biophysical and cultural information for sensitive shorelines. The folio consists of maps and text built around the ecological structure and functions of 39 sensitive shorelines, as well documents the major concerns and issues facing the inhabitants and managers. The Sensitive Shoreline Assessment methodology combines field assessments with geographic information system (GIS), remote sensing, image processing, and multimedia technologies to develop: 1) a spatial database in GIS format and a multimedia database for sensitive shorelines; and 2) an integrated multimedia approach for easy access to the digital databases. The procedures performed in this project can be further employed to other shorelines.